Terrace Bay District Fisheries Management Plan 1989 - 2000

Ontario

Ministry of Natural Resources

Ministère des Richesses naturelles

Lyn McLeod Minister/Ministre

Terrace Bay District Fisheries Management Plan 1989 - 2000

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PREFACE

This document contains the fisheries resource information and the management strategies and tactics which form the Terrace Bay District Fisheries Management Plan.

In conjunction with the District Land Use Guidelines and the Lake Superior Strategic Fisheries Management Plan, the purpose of this plan is to describe fisheries management projects to be implemented within Terrace Bay District and the long-term (year 2000) direction and objectives of fisheries management efforts.

It provides the public with information regarding the intentions of the Ministry of Natural Resources for fisheries management in the district and, in addition, stipulates targets against which the fisheries management program in Terrace Bay District can be measured by both the public and fisheries resource managers.

A summary of the Background Information and Optional Fisheries Management Strategies document was distributed to the public in November and December, 1986 (OMNR, 1986). Interested groups and individuals were asked to submit their comments. These comments have been considered in the selection of the management strategies. The draft plan was presented to the public in February, 1988 and again comments were solicited.

Public comments on the draft management plan were used to prepare this final plan. Maintaining healthy fish populations is one of our most serious resource management challenges. Sport and commercial fishers, Indian people, industrialists, resource managers and others must work together, co-operatively, if this challenge is to be met.

R.G. Running
District Manager
Terrace Bay District

M.S. Millar
A/Regional Director
North Central Region

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EXECUTIVE SUMMARY

1.0 INTRODUCTION

The Ontario Ministry of Natural Resources (O.M.N.R.) has prepared a Fisheries Management Plan for the Terrace Bay Administrative District. The plan sets out long-term goals for use of our fisheries resource, outlines concerns and describes actions proposed to resolve the concerns. It has been developed as part of the O.M.N.R. integrated resource management planning system.

Throughout the planning process, public input and involvement into the management of our fisheries resource was actively promoted.

2.0 THE RESOURCE

Terrace Bay District is one of five Administrative Districts within the North Central Region of the O.M.N.R. The district encompasses 1,237,600 ha of land, 1,068,000 ha of water on Lake Superior, and 69,000 ha of inland water.

The fisheries resource supports a wide variety of different uses from commercial fishing to tourism and recreational sport fishing. The major fish species inhabiting district waters are lake trout, brook trout, rainbow trout, walleye, whitefish, northern pike and chub. The estimated allowable yield for all water bodies within the district's boundaries is 385,670 kg of fish per year.

The estimated allowable yield for sport fish is 144,510 kg/yr of which 38,313 kg/yr is the allowable lake trout yield.

The estimated allowable yield for commercial fish is 241,160 kg/yr of which 25,000 kg/yr is the allowable lake trout yield.

3.0 PRESENT USE

In 1980 there were an estimated 10,200 adult anglers expending 83,360 angler days fishing Terrace Bay District waters.

In 1986 the allocated commercial food fish quotas totalled 96,830 kg. Of this quota, 46,792 kg of fish were actually harvested.

In 1986, 8,183 dozen bait fish were harvested by commercial bait fishermen from 20 of 54 potential bait fish blocks.

4.0 FISHERIES MANAGEMENT DIRECTION

The fisheries resource is managed for both recreational and commercial

uses. The broad fisheries management objective, taken from the District Land Use Guidelines (D.L.U.G.), is **to protect, rehabilitate, enhance and maintain Ontario's fish communities and their environment to provide an optimum contribution of fish, fishing opportunities and associated benefits to society.**

Two major amendments to the District Land Use Guidelines have been included in the Fisheries Management Plan. Both involve amending the fisheries targets and are noted in the plan as D.L.U.G. amendments. In addition, one minor amendment to the District Land Use Guidelines has also been included in this plan. This amendment involves the lake trout objective.

4.1 Commercial Fishing Objective

The commercial fishery objective is **to encourage the harvest of commercial fish when it is biologically and economically feasible** (D.L.U.G.).

4.1.1 The commercial food fish target is to sustain an annual harvest of 150,512 kg of fish species from Lake Superior by the year 2000, of which 25,000 kg/yr is lake trout.

A D.L.U.G. amendment is proposed to revise the original target of 535,000 kg/yr. The proposed target of 150,512 kg/yr is based on direction from the Lake Superior Strategic Fisheries Plan, existing quotas, and the average district harvest from 1981 to 1985.

4.1.2 The commercial bait fish target is to encourage the bait fish industry to meet the demands through natural and artificial culture (D.L.U.G.).

4.2 Sport Fish Objective

The objective is **to meet the demands for sport fishing consistent with the limits of an optimum sustainable yield** (D.L.U.G.).

4.2.1 The sport fish target is to sustain an annual harvest of 122,000 kg of sport fish species per year from Terrace Bay District waters by the year 2000. Included in the revised recreational fishing target is the lake trout target of 35,000 kg/yr of lake trout from Lake Superior and 3,313 kg/yr (0.37 kg/ha/yr) from inland lake trout lakes.

A D.L.U.G. amendment is proposed to revise the original target of 100,000 kg/yr. The proposed target of 122,000 kg/yr is based on a projected population increase in the district of 47% by the year 2000, in response to development by mining companies in the Hemlo

and Winston Lake areas.

4.2.2 The refined lake trout targets are within the D.L.U.G. lake trout target, to provide 0.25 to 0.75 kg of lake trout per hectare per year from all lake trout waters.

4.3 Lake Trout Objective

The lake trout objective is to provide for the maintenance, protection and enhancement of lake trout populations, and to provide recreational angling opportunities to the general public and commercial fishing opportunities to the commercial fish operators for this species based on optimum sustainable yield.

4.3.1 The lake trout sport fish target is to produce 35,000 kg/yr of lake trout from Lake Superior and 3,313 kg/yr (0.37 kg/ha/yr) from inland lake trout lakes by the year 2000. The D.L.U.G. lake trout target was to produce 0.25 to 0.75 kilograms of lake trout per hectare per year from all lake trout waters. This target falls within this range.

The lake trout commercial fish target is to produce 25,000 kg/yr of lake trout from Lake Superior by the year 2000.

5.0 ISSUES AND MANAGEMENT ACTIVITIES

The planning team has identified problems and issues that affect the utilization and sustainability of the Terrace Bay District fisheries resource. Several management strategies and tactics were identified and evaluated by the planning team to address these issues. These are listed below.

5.1 Prevent the loss of and improve environmental quality through:

- increased efforts to determine cause and extent of fish contaminants
- increasing public awareness of fish contaminant issues
- the prevention of fish habitat degradation by increased monitoring and enforcement of legislation pertaining to fish habitat protection
- continued rehabilitation efforts of lost fish habitat

5.2 Minimize user conflicts through:

- increased monitoring of sport and commercial fisheries by increasing enforcement patrols
- increased efforts to enhance understanding and acceptance between

user groups

5.3 Increase scientific and technical information through:

- continued and increased research of the fisheries resource and harvest
- applying the use of new technology (computers) to management practices

5.4 Improve access to Lake Superior:

- by encouraging and promoting the development and maintenance of access points to private or municipal organizations
- ensure access is developed at one site on Lake Superior within the next 5 years
- make Crown land available for marinas/resorts and points of entry to Lake Superior

5.5 Increase use of underutilized species through:

- increasing awareness of and promoting the use of underutilized species in the district by distributing information packets
- expanding whitefish dip netting areas
- increasing access to underutilized fisheries lakes in conjunction with other resource management plans
- ensuring licenced bait fish areas are being adequately utilized

5.6 Prevent the loss of fish or fishing opportunities through:

- the maintenance and/or rehabilitation of fish stocks
- enhance fish populations in lakes with no or limited sport fish through stocking of game species and/or removal of undesirable species
- promoting steps to reduce the possibility of unplanned introductions of fish into water bodies

6.0 IMPLEMENTATION

The Fisheries Management Plan provides the direction for fisheries management activities within the Terrace Bay District to the year 2000. Fisheries management activities during this period will be consistent with the strategies and tactics selected in order to achieve the stated targets and objectives.

6.1 Five-Year Implementation Schedule

Detailed fisheries management activities inherent to the achievement of the strategies are outlined and prepared in five-year intervals. **The specific tactics to be implemented during the first five-year period (1989-93) have been prepared and are described in the five-year implementation schedule of the Fisheries Management Plan.** The Fisheries Management Plan will be amended every five years by developing new five-year implementation schedules and by revising aspects of the plan that become outdated. Significant modifications or revisions to either the implementation schedule or the Fisheries Management Plan will be subject to public review as well as approval by both District Manager and Regional Director.

6.2 Annual Work Plans

Annual Work Plans will be developed from the priorities established in the five-year implementation schedule and will be subject to both funding and time frame requirements for implementing tactics.

7.0 PUBLIC REVIEW

The O.M.N.R. is committed to public consultation because we recognize the importance of our fisheries resource to our user groups as well as our local and provincial economies. Throughout the fisheries planning process in the Terrace Bay District, public involvement and input has been viewed as an essential element in the development of a preferred fisheries management program.

8.0 SUMMARY

This document provides a summary of the key components within the Terrace Bay District Fisheries Management Plan. A plan which sets our long-term goals for the use of our resource, outlines the concerns, and defines the essential measures necessary to balance a limited resource with the demands that are being placed upon it. The overall objective of the Fisheries Management Plan is to ensure that the Terrace Bay District remains a quality fishing area for years to come.

SOMMAIRE DU PLAN DE GESTION

1.0 INTRODUCTION

Le ministère des Richesses naturelles de l'Ontario (M.R.N.O.) a préparé un plan de gestion des pêches pour le district administratif de Terrace Bay. Le plan établit des buts à long terme pour l'utilisation des ressources, donne un aperçu des problèmes et décrit les actions proposées pour mettre fin à ses problèmes. Il a été élaboré comme une des parties intégrée du système de gestion des ressources.

À travers le processus de planification, la participation du public a été activement encouragée dans la gestion des ressources de pêche.

2.0 LA RESSOURCE

Le district de Terrace Bay est un des cinq districts administratifs dans la région Centre-Nord du M.R.N.O. Le district couvre une étendue territoriale de 1 237 600 hectares; 1 068 000 hectares des eaux du lac Supérieur et 69 000 hectares d'eaux intérieures.

Les ressources de pêche supportent une variété de différentes utilisations, depuis la pêche commerciale jusqu'au tourisme et à la pêche sportive et récréative. Les espèces principales de poisson habitant les eaux du district sont: le touladi, l'ombre de fontaine, la truite arc-en-ciel, le doré, le corégone, le brochet et le chevaine. La récolte estimée pour toutes les étendues d'eau dans les limites du district est de 385 670 kg de poissons par an.

La récolte permise estimée pour la pêche sportive est 144 510 kg par an de poissons, desquels une récolte permise de touladis est de 38 313 kg par an.

La récolte permise estimée pour la pêche commerciale est de 241 160 kg par an de poissons, desquels une récolte permise de touladis est de 25 000 kg par an.

3.0 UTILISATION ACTUELLE

En 1980, il y avait environ 10 200 pêcheurs adultes qui passaient 83 360 jours de pêche dans les eaux du district de Terrace Bay. En 1986, le total des quotas alloués pour la pêche commerciale, était de 96 830 kg. De ces quotas, 46 792 kg de poissons ont été effectivement récoltés.

En 1986, 8 183 douzaines de poissons d'appât ont été récoltées par les pêcheurs commerciaux de poissons d'appât dans 20 des 54 banes possibles de poissons d'appât.

4.0 DIRECTION DE LA GESTION DES PÊCHES

Les ressources de pêche sont gérées pour la récréation et l'utilisation commerciale. L'objectif général de gestion extrait des Directives sur l'aménagement du territoire (D.A.D.T.) est de protéger, réhabiliter, améliorer et de maintenir la population maximum de poissons, les opportunités de pêche de les bénéfices associés.

Deux amendements majeurs aux Directives sur l'aménagement du territoire (D.A.D.T.) ont été inclus dans le plan de gestion des pêches. Tous deux impliquent d'amender les pêcheries cibles et sont notés dans le plan comme des amendements au D.A.D.T.. En plus, un amendement mineur aux Directives sur l'aménagement du territoire du district (D.A.D.T.) a aussi été inclu dans ce plan. Cet amendement concerne l'objectif du touladi.

4.1 Objectif de la pêche commerciale

L'objectif de la pêche commerciale est d'encourager la récolte de poisson commercial quand cela est biologiquement et économiquement réalisable.

4.1.1 L'objectif pour le poisson commercial est de maintenir d'ici à l'an 2000, une récolte annuelle de 150 512 kg de poissons des espèces du lac Supérieur, desquels 25 000 kg par an est du touladi.

Un amendement est proposé pour réviser l'objectif original de 535 000 kg par an. L'objectif proposé de 150 512 kg par an est basé sur les quotas existants de la direction du plan stratégique des pêches du lac Supérieur et sur la récolte moyenne du district de 1981 à 1985.

4.1.2 L'objectif pour le poisson d'appât est d'encourager cette industrie à rencontrer les demandes grâce à la culture naturelle et artificielle (D.A.D.T.).

4.2 Objectif de la pêche sportive

L'objectif est de rendre les demandes de pêche sportive compatibles avec les limites d'une production soutenable maximum.

4.2.1 L'objectif de la pêche sportive est de maintenir, d'ici l'an 2000, une récolte annuelle de 122,000 kg de poissons des eaux du district de Terrace Bay. Inclu dans l'objectif révisé de la pêche récréative, se trouve l'objectif pour le touladi de 35 000 kg par an de touladis du lac Supérieur et de 3 313 kg par an (0,37 kg/ha/an) pour les touladis dans les lacs intérieurs.

Un amendement est proposé pour réviser l'objectif original de 100 000 kg par an. L'objectif proposé de 122 000 kg par an est basé sur une augmentation prévue de la population de 47 pour 100

dans le district pour l'an 2000, en raison de l'exploitation minière dans les régions de Hemlo et Winston Lake.

4.2.2 Les objectifs révisés sont dans les limites de l'objectif du D.A.D.T. de produire de 0,25 à 0,75 kg de touladi par hectare par an, dans toutes les eaux à touladi.

4.3 Objectif pour le touladi

L'objectif pour le touladi est de permettre le maintien, la protection, l'amélioration de la population de touladis et d'offrir des opportunités de pêche récréative pour le public et des opportunités de pêche commerciale pour les pêcheurs commerciaux de ces espèces et ce basé sur une production soutenable maximum.

4.3.1 L'objectif pour la pêche sportive du touladi est de produire 35 000 kg/an de touladi du lac Supérieur et de 3 313 kg/an (0,37 kg/ha/an) des lacs intérieurs, d'ici l'an 2000. L'objectif du D.A.D.T. pour le touladi étant de produire de 0,25 à 0,75 kilogramme par hectare, de toutes les eaux à touladi. Cet objectif se trouve dans ces limites.

L'objectif pour la pêche commerciale du touladi est de produire, d'ici l'an 2000, 25 000 kg/an de touladi, dans le lac Supérieur.

5.0 PROBLÈMES ET ACTIVITÉS DE GESTION

L'équipe de planification a identifié des problèmes qui affectent l'utilisation et le maintien des ressources de pêche du district de Terrace Bay. Plusieurs stratégies et tactiques de gestion ont été identifiées et évaluées par l'équipe de planification pour résoudre ces problèmes; ces stratégies sont énumérées ci-dessous.

5.1 Prévenir les pertes et améliorer la qualité de l'environnement grâce à:

- l'augmentation des efforts pour déterminer la cause et l'étendue de la contamination des poissons.
- l'augmentation de la prise de conscience du public en ce qui concerne les problèmes des contaminants des poissons.
- la prévention de la dégradation de l'habitat des poissons, en augmentant les contrôles et l'application de législation concernant la protection de l'habitat des poissons.
- des efforts continus de réhabilitation pour les habitats de poisson déjà détériorés.

5.2 Minimiser les conflits grâce à:

- une augmentation des contrôles de la pêche sportive et commerciale en augmentant le nombre des patrouilles de contrôle.

- une augmentation des efforts pour améliorer la compréhension et l'acceptation entre les groupes d'usagers.

5.3 Augmenter l'information scientifique et technique grâce à:

- une augmentation continue de la recherche sur les ressources et les récoltes de pêche
- l'application de l'utilisation de nouvelles technologies (ordinateur) pour gérer ces pratiques.

5.4 Améliorer l'accès au lac Supérieur:

- en encourageant le développement et l'entretien des points d'accès pour les organisations privées ou municipales
- en s'assurant que l'accès est développé sur le lac Supérieur dans les (5) cinq prochaines années
- en rendant les terres de la Couronne disponibles pour les marinas, centres de loisirs et points d'entrée du lac Supérieur

5.5 Augmenter l'utilisation des espèces sous-exploitées grâce à:

- l'augmentation de la prise de conscience et la promotion de l'utilisation des espèces sous-exploitées dans le district, en distribuant des brochures d'information
- l'extension des territoires de pêche au filet du corégone
- l'augmentation de l'accès aux lacs sous-exploités pour la pêche en conjonction avec d'autres plans de gestion des ressources
- et en s'assurant que les territoires licenciés pour le poisson d'appât sont suffisament utilisés

5.6 Prévenir la perte du poisson ou des opportunités de pêche par:

- le maintien et/ou la réhabilitation des réserves de poissons
- l'amélioration des populations de poissons dans les lacs ayant aucune ou peu de pêche sportive, par l'empoissonnement et/ou la suppression des espèces indésirables
- l'élaboration des étapes pour réduire la possibilité que des espèces de poissons soient introduites de façon non-planifiée dans des étendues d'eau

6.0 MISE EN OEUVRE

Le plan de gestion des pêche indique la direction pour les activités de gestion des pêches du district de Terrace Bay jusqu'à l'an 2000. Les activités de gestion pendant cette période seront compatibles avec les tactiques et stratégies sélectionnées de façon à arriver aux buts et objectifs mentionnés.

6.1 Plan quinquennal de mise en oeuvre

Des activités détaillées de gestion pour les pêches en ce qui attrait à la réalisation des stratégies, sont préparées à tous les 5 ans. Les tactiques spécifiques qui seront mises en oeuvre durant la période couvrant les 5 prochaines années (1989-93), ont été préparées et sont décrites dans le plan quinquennal de mise en oeuvre du plan de gestion des pêches. Le plan de gestion des pêches sera amendé tous les 5 ans en élaborant de nouveaux plans de mise en oeuvre et en révisant certains aspect du plan devenus périmés. Les modifications importantes ou les révisions au plan de mise en oeuvre ou au plan de gestion des pêches fera l'objet d'une révision publique ainsi qu'à une approbation par le chef du district et le directeur régional.

6.2 Plans de travail annuels

Les plans de travail annuels seront élaborés à partir des priorités établies dans le plan quinquennal de mise en oeuvre et seront sujets au financement ainsi qu'à des exigences de limite de temps pour les tactiques de mise en oeuvre.

7.0 RÉVISION PUBLIQUE

Le M.R.N.O. s'est engagé à faire des consultations publiques parce que nous reconnaissons l'importance des ressources de pêche pour les groupes d'utilisateurs ainsi que pour l'économie locale et provinciale. Dans tout le processus de planification des pêches dans le district de Terrace Bay la participitation du public a été perçue comme un élément essentiel dans l'élaboration d'un programme de gestion recommandé.

8.0 RÉSUMÉ

Ce document nous donne un résumé d'élément essentiel dans le plan de gestion des pêches du district de Terrace Bay. Le plan établit des buts à long terme pour l'utilization des ressources, décrit les problèmes et définit les mesures essentielles nécessaires pour équilibrer une ressource limitée sur laquelle sont placées des demandes. L'objectif général du plan de gestion des pêches est d'assurer que le district de Terrace Bay demeure une région de pêche de qualité pour les années à venir.

INTRODUCTION

The purpose of the Terrace Bay District Fisheries Management Plan is to describe the direction of fisheries management efforts within the Terrace Bay District to the year 2000. It specifically describes those fisheries management actions to be implemented on the basis of 5-year intervals.

Integrated Resource Management Planning:

The Terrace Bay District Fisheries Management Plan is being developed as part of the Ministry of Natural Resources integrated resource management planning strategy. Resource management planning is carried out to plan for a specific resource with objectives and targets which will provide the manager direction on how to manage the resource, while at the same time taking into consideration other resource objectives and targets so they too can be achieved. The Northwestern Ontario Strategic Land Use Plan (S.L.U.P.) provides the management direction, policies, targets, and guidelines for resource management within Northwestern Ontario (OMNR, 1982). This document provides the direction for the Terrace Bay District Land Use Guidelines (D.L.U.G.) which describe resource management directions concerning the use of land and water within the district and identifies where and how the Ministry intends to achieve its objectives (OMNR, 1983).

Fisheries Management Planning:

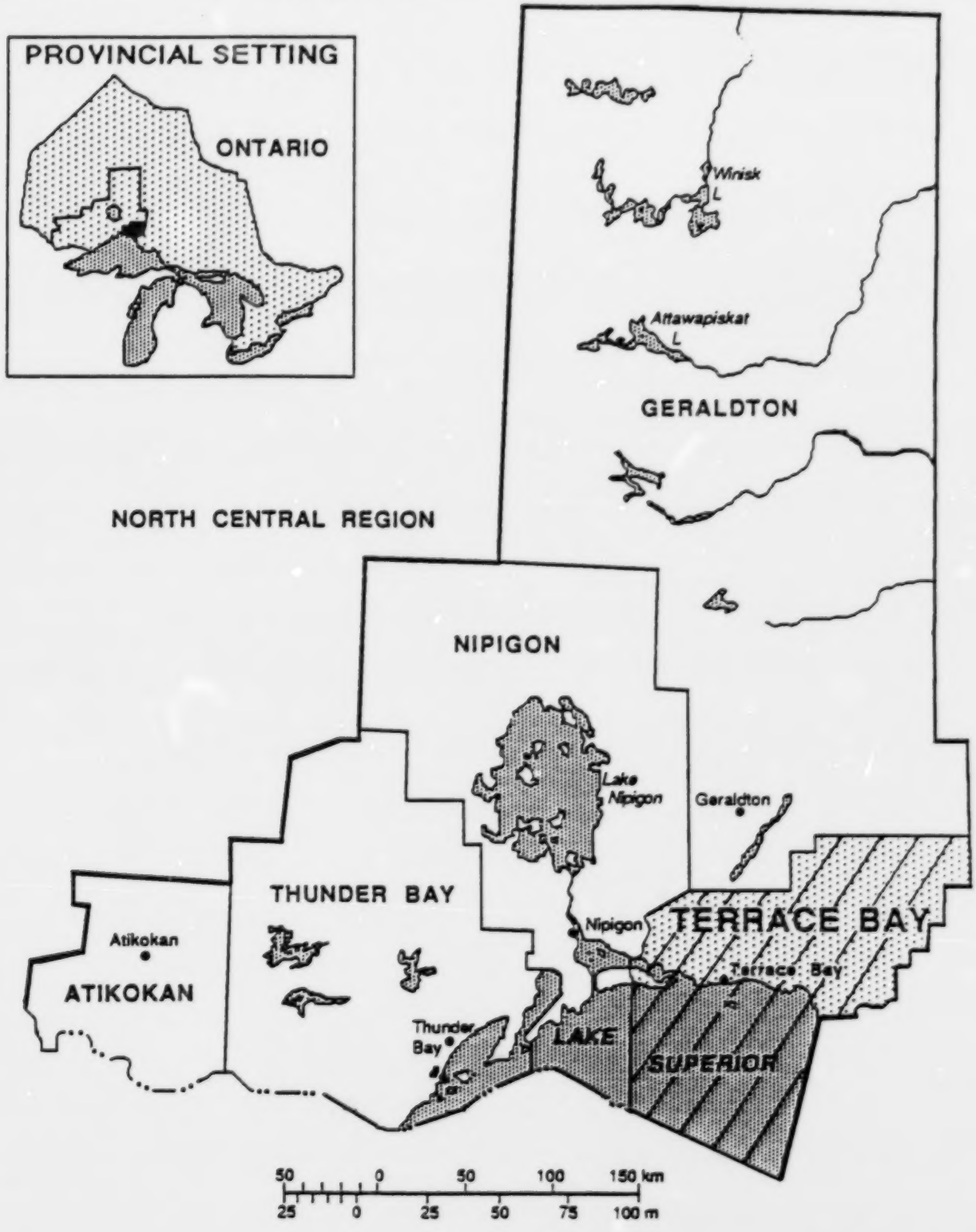
The general policies, management principles, goals and objectives for fisheries management in Ontario were developed by a task force on Strategic Planning for Ontario Fisheries (S.P.O.F.). Under the direction of S.P.O.F. the Lake Superior Strategic Fisheries Plan (OMNR, 1987a) was written. It specifically outlines the objectives, targets and strategies for fisheries management on Lake Superior.

Fisheries Management Planning in Terrace Bay District:

This District Fisheries Management Plan pertains to all water bodies within the Terrace Bay Administrative District of the Ontario Ministry of Natural Resources, including that portion of Lake Superior within the district's boundaries (Figure 1). Phase I of the district's Fisheries Management Plan began with the development of the Terrace Bay District Fisheries Management Plan Background Information document under the direction provided by D.L.U.G. These documents then formed the basis for the document entitled "Terrace Bay District Fisheries Management Plan 1987-2000, A Summary of Background Information and Optional Management Strategies", which was presented to the public in 1986 for comment. These comments are available for public review at the Terrace Bay District Office.

The next phase of the Terrace Bay District Fisheries Management Plan was the preparation of the district's Draft Fisheries Management Plan. This preliminary plan was developed primarily on the foundations of all these documents and the public's comments on the Background Information document. Public comment was again solicited on the information contained in

FIGURE 1:
TERRACE BAY DISTRICT REGIONAL AND PROVINCIAL SETTING



the draft plan. These comments were used to develop this Final District Fisheries Management Plan. This plan highlights some of the background studies and analysis undertaken as part of the fisheries management planning process. It describes detailed management activities to be carried out by 5-year intervals. Annual fisheries work program plans will be developed in accordance with these 5-year implementation schedules.

This final approved Fisheries Management Plan will be revised/ reviewed every five years by developing new 5-year implementation schedules and by revising aspects of the Management Plan as they become outdated.

The Terrace Bay District has much potential and diversity in its fisheries resource, the management of which is identified and addressed in this plan.

Public Involvement:

An important component of the fisheries resource management planning process is to solicit public consultation and involvement. Public comment was incorporated into the development of this Fisheries Management Plan (Figure 2).

All the above-mentioned documents are available for public review at the Terrace Bay District Office.

Indian Fishing Agreements:

The allocation of fish to Indian people under recognized Treaty Rights is an integral part of District Fisheries Management Plans. Negotiations are ongoing at Federal, Provincial and Regional levels to develop Indian Fishing Agreements. These agreements should ultimately be the guidelines for local Band fishing agreements. When Indian Fishing Agreements are reached this plan will be revised if necessary.

Amendments to D.L.U.G.:

Two major amendments made to the District Land Use Guidelines have been included in this Fisheries Management Plan. The amendments involve the sport and commercial fisheries targets. The refinement of these targets required an amendment to D.L.U.G. and a public review. This review was held in conjunction with open houses for the Draft Fisheries Management Plan.

In addition, one minor amendment to the District Land Use Guidelines has also been included in this plan. This amendment involves the lake trout objective and contact was made with affected interest groups prior to the revision being approved.

THE PLANNING PROCESS

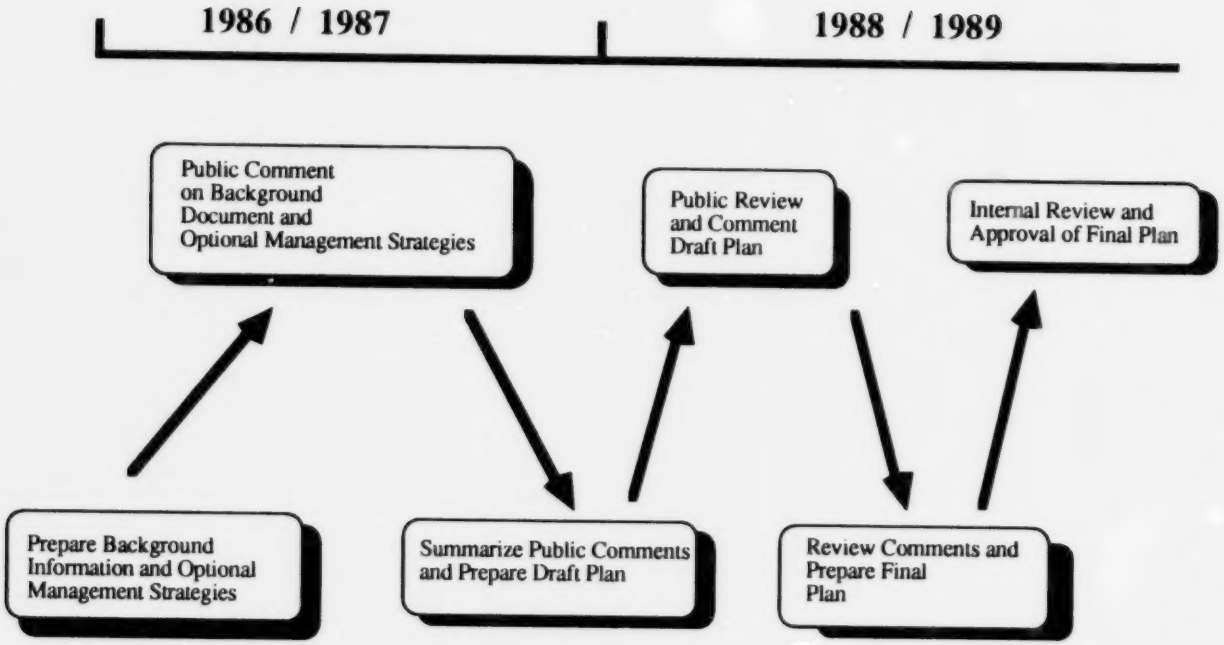

1986 / 1987
1988 / 1989
Public Comment on Background Document and Optional Management Strategies
Public Review and Comment Draft Plan
Internal Review and Approval of Final Plan
Prepare Background Information and Optional Management Strategies
Summarize Public Comments and Prepare Draft Plan
Review Comments and Prepare Final Plan

Figure 2. Schedule of the preparation of the Terrace Bay District Fisheries plan.

DISTRICT FISHERIES PERSPECTIVE

The Terrace Bay District covers 1,237,600 ha of land (Clarke, 1983), 1,068,000 ha of water on Lake Superior (MacCallum, 1986), and 69,000 ha of inland waters (Figures 1 and 3).

Terrace Bay District falls mainly within the Great Lakes-St. Lawrence Watershed System and partly within the Hudson-James Bay System. The Hudson-James Bay System flows north into the Albany River System. The Great Lakes-St. Lawrence System splits into 2 secondary divisions with waterways flowing south into Nipigon Bay and Lake Superior. Secondary divisions are further split into 5 tertiary watersheds, which are further split into many localized watershed units. A height of land surrounding the district causes this natural flow and prevents fish migration from one watershed to the next. The only exception to this occurrence is the Long Lake System which was diverted in 1939 to facilitate a Hydro plant for Terrace Bay.

The major sport fish species sought by anglers in the district water bodies are lake trout, brook trout, walleye, rainbow trout and northern pike. The major species taken under the quota system on commercial fish licences are chub, whitefish and lake trout.

Current and projected fish use, allowable yields and targets of both the recreational and commercial fisheries are presented in Table 1. Definitions of terms are presented in the glossary of this document.

The total estimated allowable yield for sport fish species in the district is 144,510 kg/yr. Of this total 38,313 kg/yr is the allowable lake trout yield.

In 1980 approximately 10,200 adult anglers spent 83,360 angler days fishing in the Terrace Bay District. Approximately 80% of this use is attributed to Ontario residents (Bedi and Clifford, 1982).

The population of the district is expected to increase by 47% by the year 2000, primarily due to the development of the Hemlo Goldfields (Ontario Ministry of Municipal Affairs, 1986). Based on this increase, total angler days could be expected to rise to 122,000. At a harvest success rate of 1 kg/angler day, 122,000 kg of fish/yr could be harvested by the year 2000.

The estimated allowable yield for commercial food fish is 241,160 kg/yr. Five commercial fishing licences are issued annually from the Terrace Bay District Office for the area of Lake Superior within the district. Three other commercial operators have quotas on the Lake Superior Shoals within the district but are licenced through other districts. In 1986 the commercial fish quotas allocated totalled 96,830 kg. The reported harvest was 46,792 kg of fish worth a wholesale value of $65,204.00.

The commercial fish target is 150,512 kg annually (OMNR, 1987a) from the district's portion of Lake Superior. Of this total, 25,000 kg/yr is expected to be lake trout.

There are 54 bait fish blocks in the Terrace Bay District. In 1986,

TABLE 1. TARGET REFINEMENT/DISTRICT USE AND PROJECTIONS

	CURRENT USE (kg/yr)	PROJECTED USE FOR YEAR 2000 (kg/yr)	D.L.U.G. TARGET (kg/yr)	ALLOWABLE YIELD (kg/yr)	AMENDED D.L.U.G. TARGET (kg/yr)
Commercial Fishery					
Bait Fish (doz.)	8,183 (1986)	N/A	To Meet Demand	N/A	To Meet Demand
Food Fish (kg)[2]	46,792 (1986)	150,512	535,000	241,160	150,512
Sport Fishery[1,2]					
Users - Residents	72,160 (1980)	105,608			
- Non-Residents	11,200 (1980)	16,392			
TOTAL	83,360	122,000	100,000	144,510	122,000
Lake Trout	N/A	63,313	0.25-0.75 kg/ha of lake trout water	63,313	38,313 (sport) 25,000 (commercial) 63,313 (total)

[1] The use and target figures are based upon an angling satisfaction rate of one kilogram per angler day (1 angler day = 4 angler hours).

[2] Lake trout component included in these figures.

N/A - Not Available

20 blocks were licenced and 8,183 dozen bait fish valued at $10,670.00 were caught. An increase in bait fish demand is expected due to the projected increase in angling pressure. The expected increased bait fish demand will be well within the production capabilities of district waters.

The tourist industry within the district is not extensively developed. There are 8 commercial tourist operators. Four depend upon Highway 17 tourist traffic while the other 4 offer fly-in services to 37 outpost camps. Of these 37 camps, 16 offer fishing primarily for walleye and/or northern pike. In 1982, these operations totalled 3,366 user days and grossed a revenue of $160,000 (Courtney, MTR, 1983). Tourism is expected to increase in the Terrace Bay District.

Fish derbies are a major stimulus to commercial tourism along the north shore of Lake Superior. They are a major source of revenue and advertising for local shoreline communities, such as Rossport (Todesco, pers. comm.).

MANAGEMENT DIRECTION

The goal of the Ministry of Natural Resources is to provide opportunities for continuous economic and social benefits to the people of Ontario through the development and conservation of Ontario's natural resources (Tough, 1987).

The objectives of fisheries management in Northwestern Ontario are to protect, rehabilitate, enhance, and maintain Ontario's fish communities and their environments to provide an optimum contribution of fish, fishing opportunities, and associated benefits to society (OMNR, 1982).

These broad management objectives have provided the direction for the more specific objectives and targets developed for the Terrace Bay District's sport, commercial, lake trout and bait fish fisheries. These are consistent with the general objectives. They also reflect the capacity of the local fisheries to meet the demands of resource users.

The specific strategies and tactics which were developed to enable the Terrace Bay District to meet the objectives and targets are presented in the section entitled "Management Activities".

The management activities which will be undertaken for the first 5-year period 1989-1993 are outlined in the Implementation Schedule (Table 2).

Sport Fish Management:

Objective:

The Terrace Bay District sport fish objective is to meet the demand for sport fishing consistent with the limits of an optimum sustainable yield.

Target:

The sport fish target is to meet the anticipated angling demand by the year 2000 of 122,000 angler-days, at an angler satisfaction level of 1 kilogram per angler-day or an annual harvest of 122,000 kilograms of fish. **Included in the sport fish target is the lake trout target of 35,000 kg of lake trout from Lake Superior (OMNR, 1987) and 3,313 kg/yr of lake trout (0.37 kg/ha/yr) from inland lake trout lakes.**

Discussion:

The sport fish target is based on the 1980 Provincial angling survey. In terms of yield, the target is to provide a total potential sport fish yield of 122,000 kg annually by the year 2000.

The most popular sport fish species angled in the district are lake trout, brook trout, walleye and rainbow trout.

The waters of Lake Superior and its tributaries will supply approximately 34% of projected cold water fisheries angling opportunities. This will include lake, brook and rainbow trout as well as pink, coho and chinook salmon. Salmon are a recent and increasingly important component of the Lake Superior fish community. Participation in enhancement projects will be subject to district and the Great Lakes Management Committee approval (i.e. C.F.I.P.). An

estimated allowable yield for salmonid species on Lake Superior (excluding lake trout) available to the recreational sport fish industry is expected to be 6,000 kg annually by the year 2000.

The inland sport fish target is to annually harvest 81,000 kg of sport fish per year by the year 2000. If this is to be realized, fishing effort will have to be distributed evenly across all district waters so that the accessible lakes and streams will not become overfished.

It will also be necessary to encourage the use of underutilized species and to increase fish yields from underproducing waters.

Commercial Fish Management:

Objective:

The Terrace Bay District commercial fishing objective is to encourage the harvest of commercial fish when it is biologically and economically feasible.

Targets:

The commercial food fish target is to sustain an annual harvest of 150,512 kg of fish species from Lake Superior by the year 2000. **Of this target 25,000 kg/yr is lake trout** (OMNR, 1987a).

The commercial bait fish target is to encourage the bait fish industry to meet the demands through natural and artificial culture, consistent with the anticipated increase in angler demand.

Discussion:

With the exception of bait fish, commercial fishing activities will be confined to the waters of Lake Superior.

In 1986 the licenced commercial fish operators harvested 46,792 kg of fish from the 96,830 kg of allocated quotas for the district's portion of Lake Superior. The apparent low utilization of the present quotas can in part be attributed to poor market conditions for some species, travel distances, and the vast stretches of unsheltered waters on this portion of Lake Superior. The commercial fish target of 150,512 kg allows for expansion of the present harvest.

The direction commercial fisheries management is taking is to establish long-term targets based on sustainable yields.

If the commercial lake trout target of 25,000 kg/yr by the year 2000 is to be realized, the lake trout stocks in Lake Superior must be rehabilitated and available for harvest.

Management efforts will be directed towards developing and/or upgrading access points on Lake Superior, rehabilitating the Lake Superior lake trout populations and monitoring the fish harvest.

There are 54 commercial bait fish blocks available in the Terrace Bay District. In 1986, 20 blocks were licenced and 8,183 dozen bait fish were caught and sold. There has been a recent increase in demand for bait fish due to increases in fishing pressure. Although the increased bait fish demand is well within the production capabilities of district waters, there are constant local bait fish shortages.

Management efforts will be directed at reviewing the bait fish program and developing a procedure to ensure bait fish blocks are being utilized. Access to bait fish lakes will be increased through input into resource management plans and district staff will be available to provide information and advice regarding bait fish to the public and the bait fish industry.

Lake Trout Management:

Objective:

The lake trout objective is to provide for the maintenance, protection and enhancement of lake trout populations, and to provide recreational angling opportunities to the general public and commercial fishing opportunities to the commercial fish operators for this species based on optimum sustainable yield.

Targets:

The lake trout sport fish target is to produce 35,000 kg/yr of lake trout from Lake Superior and 3,313 kg/yr (0.37 kg/ha/yr) from inland lake trout lakes by the year 2000. The D.L.U.G. lake trout target was to produce 0.25 to 0.75 kilograms of lake trout per hectare per year from all lake trout waters. This target falls within this range.

The lake trout commercial fish target is to produce 25,000 kg/yr of lake trout from Lake Superior by the year 2000.

Discussion:

Management direction for lake trout will be directed towards reviewing and reconfirming known lake trout lakes (Appendix A) as well as identifying new lake trout waters. Efforts will be directed towards habitat protection, fish harvest controls and monitoring, establishing new lake trout waters and lake trout rehabilitation on Lake Superior. Access points on Lake Superior will be upgraded and/or developed. A lake management plan will be developed for Killala Lake. Present management direction is to maintain Killala Lake as a sanctuary from which lake trout spawn is collected for the provincial hatcheries.

MANAGEMENT ACTIVITIES

A number of issues related to meeting the fisheries resources targets have been identified in the previous section. Additional issues have been identified in the background documents and through public input.

In order to meet the demand on the fishery, district waters must be managed to achieve their greatest sustainable yield. To accomplish this the issues, which have been summarized into 6 categories, must be addressed on a district-wide basis.

The strategies and tactics which will enable the Terrace Bay District to manage the fish resources and meet the stated targets and objectives are listed under the relevant issue headings below.

Improvement of Environmental Quality:

Habitat degradation has led to a loss of environmental quality in a number of district water bodies. This has contributed to decreased fish production and/or fish community imbalances which results in the reduction of fishing opportunities.

Environmental quality may be lowered through the extraction operations of timber and mineral or aggregate industries, industrial or municipal pollution, acidification, the construction and operation of water control structures and private development along waterfronts. In addition, the presence of contaminants in fish flesh may render it unsuitable for human consumption.

Although it is the mandate of the Ministry of the Environment to achieve and maintain a quality of the environment, including air, water and land, that will protect human health and the ecosystem and will contribute to the well-being of the people of Ontario (OMOE, 1986), the MNR mandate is in part concerned with protecting and conserving public land and water for the benefit of fish populations. Thus the following strategies and tactics will address this issue in terms of the MNR mandate.

Strategies and Tactics:

1) Increase efforts to determine extent of mercury, other fish contaminants, and acid rain problems by:

   - recommending annually to MOE lakes which should be sampled for contaminants
   - continuing to collect fish samples for MOE in conjunction with lake surveys or other fish management activities
   - co-operating with other jurisdictions on acid rain research

2) Increase public awareness of fish contaminant problems by:

   - issuing news releases and newspaper articles on this subject
   - informing the public in conjunction with related meetings
   - involving MOE in public meetings

3) Prevent degradation of fish habitat by:

- reviewing with input into municipal, other government agencies and private sector plans/programs regarding herbicide and insecticide spraying, water control structure and bridge construction, access road construction, mining exploration, aggregate removal and timber management
- monitor in compliance with and enforce legislation pertaining to fish habitat protection
- informing the public through news releases and newspaper articles of the proper procedures for carrying out activities on Crown land

4) Ensure rehabilitation of lost fish habitat by:

- continuing to identify sites of habitat degradation and address rehabilitation of those sites
- encouraging user groups to take precautions which will prevent damage to or loss of fish habitat
- encouraging and working with resource extraction companies to rehabilitate areas affected by their operations
- monitoring and enforcing ordered rehabilitation of fish habitat
- supporting habitat rehabilitation projects under the Community Fisheries Involvement Program (C.F.I.P.)
- to work in conjunction with the Ministry of the Environment to mitigate degraded sites on Lake Superior, i.e. Remedial Action Plan (R.A.P.)

Minimize User Conflicts:

Conflicts arise between both consumptive and non-consumptive users of the fisheries resource. These conflicts may be real or perceived. The most obvious conflicts occur among consumptive users. These users include resident and non-resident anglers, commercial fish operators, tourist operators, and Indian people.

Local anglers are the primary user group. It is a generally held misconception that non-residents are overfishing many water bodies. Non-resident anglers constitute only 20% of the district angling community. Consequently, there are few areas where direct competition between resident and non-resident anglers occur.

Anglers perceive that commercial fish operators compete with them for available lake trout in Lake Superior.

Anglers and tourist outfitters are in conflict regarding access. The outfitters advocate access control to preserve the remoteness of their operations. The anglers prefer to see the maintenance and expansion of access roads. Generally in the district there is a lack of developed and/or maintained access points for anglers. The two groups are also in direct competition for the fish. On many commercial outpost camp lakes in the district, access is now available by snowmachine or all terrain vehicles much of the year and angling pressure is heavy. This results in a decrease in successful fishing opportunities for the tourist outfitter clientele as well as a loss of remoteness.

The MNR's tourism objective as identified in D.L.U.G. outlines this Ministry's commitment to providing the tourist industry

with tourism opportunities on Crown land as well as making outdoor recreational opportunities available for the local users.

The Ministries of Natural Resources, Tourism and Recreation, Northern Development, and Mines, along with both the tourism and resource extraction industries, are presently working closely to develop strategies that will work towards meeting each other's objectives while reducing potential conflicts. Certain lakes identified in D.L.U.G. will be further evaluated along with the shore of Lake Superior to determine their tourism potential.

Some access roads constructed for resource management may indirectly access remote tourism lakes, causing them to lose their degree of remoteness and increasing the opportunity for overharvesting the fishery. The MNR is committed to following the direction laid out in its Timber Management Guidelines For The Protection of Tourism Values (OMNR, 1987b).

There is a lack of public awareness or appreciation of some aspects of fisheries management causing conflict between the public and fisheries managers. In some instances the public views the fisheries resource as limitless and unrealistic demands are placed on the resource. On the other hand some fish species are perceived by segments of the public as being undesirable. Non-traditional uses of the fisheries resource such as viewing, or fish as indicators of the health of the environment, are often overlooked.

Strategies and Tactics:

1) Enhance understanding and acceptance amongst user groups by:

- promoting meetings of various user groups and agencies
- supporting the process of negotiating Indian Fishing Agreements
- informing public of fisheries management activities and benefits through news releases and media updates

2) Attempt to minimize user conflicts between anglers and commercial fish operators by:

- continuing to allocate commercial fish quotas within the total allowable harvest on Lake Superior with emphasis on underutilized species
- monitoring the fisheries, both sport and commercial, to maintain current information regarding the status of fish stocks
- recommending and providing input into the Lake Superior Management Committee in order to make regulation changes as required to maintain healthy fish stocks in Lake Superior
- increasing patrols and investigations to enforce applicable regulations and quotas
- any additional and presently unallocated quotas that become available in the future will be allocated only to existing Lake Superior commercial fishing licences

3) Reduce conflict between anglers and tourist operators by:

- altering fishing seasons or access on selected lakes to maintain a high quality

fishery for all users
- developing a boat cache system for specific lakes in the Terrace Bay District
- promoting access development and good fishing opportunities within close proximity of major communities
- encouraging C.F.I.P. projects to promote education and enhanced fisheries

4) Reduce conflict between tourist operators and resource extractors by:

- encouraging agreement on mutually beneficial road locations
- reviewing with input into resource management plans and new road locations
- increasing efforts to enhance understanding and communications with and between resource user groups
- altering access on select lakes to maintain a high quality fishery

Increase Scientific and Technical Information:

Fisheries managers are often hampered by inadequate scientific and technical information. Areas where more information is required are: inventory and assessment; fisheries use and harvest data; extent of illegal fishing activities; validation of commercial fish catches; fisheries productivity and yields; long-term species interactions and Indian commercial, subsistence and sport fish harvest data.

Strategies and Tactics:

1) Gain more accurate and up-to-date information concerning the fisheries resource and its users by:

- conducting lake and stream aquatic inventory surveys
- conducting assessments and inventories of fish populations in prominent water bodies
- conducting angler surveys to gather information regarding utilization and harvest
- conducting intensive creel censuses from specific areas on Lake Superior
- using volunteers/co-operators to supply harvest information
- monitoring the bait fish harvest

2) Apply new technology to aid and expedite data management and reporting by:

- continuing to train and update staff in the use of computers
- acquiring appropriate software and hardware

3) Encourage and stimulate research on Lake Superior by:

- encouraging a study of stocking and reproductive success of stocked lake trout in Lake Superior by the Lake Superior Unit or educational groups
- in conjunction with the Lake Superior Unit conduct assessment programs on the status of commercial, sport and forage fish stocks in the Terrace Bay District
- promote private or educational groups to collect information regarding pacific salmon and their interaction with other fish species

Improve Access to Lake Superior:

Access points onto Lake Superior are very limited due to the rugged terrain, vast stretches of unsheltered shoreline and the necessity of crossing a railroad line. Presently there is limited access at Marathon, Terrace Bay and Rossport. Increased access onto Lake Superior would increase the fishing opportunities available in Terrace Bay District to both anglers and the commercial fish operators.

Strategies and Tactics:

1) Encourage the development and maintenance of access points on Lake Superior by:

   - ensuring access is developed at one site on Lake Superior within the next 5 years
   - encouraging private or municipal development of other sites
   - making Crown land available for marinas/resorts and points of entry to Lake Superior

Promote Use of Underutilized Species:

Lake whitefish, northern pike, yellow perch and pink salmon are generally underutilized by anglers in the Terrace Bay District. Public misconceptions on the edibility of some of these species exist. there is a lack of public information on how to catch and prepare these underutilized fish.

Commercial fish quotas are not fully utilized. Lake whitefish, chub and lake herring quotas are generally not filled. Many commercial bait fish areas are not being adequately utilized.

Strategies and Tactics:

1) Promote the utilization of lake whitefish, northern pike, yellow perch and pink salmon by anglers, lake whitefish and chub by commercial fish operators, and minnow species by licenced bait fish harvesters by:

   - expanding areas available for whitefish dip-netting
   - distributing information packages on fishing and cooking techniques for these species as well as locating where they can be caught
   - increasing access to underutilized fisheries lakes in conjunction with other resource management plans
   - review of bait fish program to develop a procedure to ensure bait fish areas are being utilized

Maintain, Restore or Enhance Fish Stocks and Fishing Opportunities:

Fish or fishing opportunities may be lost due to a variety of reasons. In the Terrace Bay District some of these losses occur due to the illegal introduction of new fish species into a water body, the illegal harvest of fish, dams, culverts and bridge construction impeding the movement of fish species, and private, municipal and industrial development such as mines, industries, municipalities and MNR road closures or closing water supply lakes to fishing. Parts of the district are well accessed, however, there are few lakes with acceptable boat launch facilities. Fishing pressure could be more evenly distributed across the district with improvements to and by increasing the number of lakes

with boat launch facilities.

Potential fishing opportunities may not be presently available due to (glacial) species distribution, location or historic activities (i.e. logging).

Strategies and Tactics:

1) Identify new or additional opportunities by:

   - undertaking fish species community changes in underproducing waters by altering fish populations in select lakes with no or limited sport fish
   - introduce splake into one lake, walleye into three lakes and rainbow trout into four lakes which presently do not have self-sustaining populations of these species
   - Developing a lake management plan for Killala Lake which presently has sanctuary status. This plan would consider tourism, limited angling, cottaging and the retention of its sanctuary status.

2) Reduce the possibility of unplanned introductions of fish by:

   - informing the public through pamphlets and meetings of the problems associated with introductions of new fish species into water bodies
   - continuing to strictly enforce the regulations regarding the introductions of new fish species
   - implementing new regulations regarding restricted use of live bait in certain water bodies (Killala Lake, see section 1; stocked brook or aurora trout lakes)

3) Maintain or rehabilitate fish stocks by:

   - continuing to support the Federal Sea Lamprey Control Program
   - maintaining lake trout stocking into Lake Superior for rehabilitation purposes and to provide angling and commercial fishing opportunities
   - compiling a District Enforcement Plan which will ensure the best use of fish management and compliance with Acts and Regulations
   - promoting the use of northern pike, yellow perch, lake whitefish, and pink salmon in order to redistribute some of the fishing pressure
   - reviewing with input into culvert, dam, and bridge construction; private, municipal and industrial development; resource extraction; and other government agency plans in order to minimize detrimental effects on fish populations and habitat.
   - recommending necessary season, limit, access or stocking changes

4) Increase large river fishing opportunities by:

   - increasing access to large rivers
   - conduct a large river survey
   - rehabilitate degraded river habitat

IMPLEMENTATION

General:

This Fisheries Management Plan provides the direction for fisheries management activities within the Terrace Bay District to the year 2000. All fisheries management activities during this period will be consistent with the strategies and tactics selected to achieve the stated targets and objectives.

Strategies and tactics identified in this plan will be implemented through:

- the preparation of successive 5-year implementation schedules
- programs and projects approved and funded under the Ministry of Natural Resources work planning process
- input to or participation in other programs carried out by the Ministry of Natural Resources
- encouraging dialogue and communications amongst resource user groups
- co-operative efforts with local sportsmen's organizations, and private interest groups/ individuals under the Community Fisheries Involvement Program, educational groups, or volunteer programs
- review and input into work plans and proposals from municipalities, private individuals, industry, and government agencies
- public education through various media and public meetings

Routine planning and administrative functions have not been included. Many strategies and tactics mentioned in this plan involve enforcement. A Terrace Bay District Enforcement Plan is presently being prepared, incorporating these and other enforcement oriented strategies and tactics.

Five-Year Implementation Schedule:

The specific management activities to be implemented during the first 5-year (1989-93) period are described in Table 2. These tactics, described as individual projects, have been identified according to:

- those which can be carried out at existing funding levels
- those which would require additional funding, i.e. recreational sport fish licence funds and other new funding sources
- those which can be partially carried out at existing funding levels but would also require additional funding to complete the project

Annual work plans will be developed from the priorities established in the 5-year implementation schedule and will address both funding and time frame requirements for implementation of tactics.

The implementation schedule for the subsequent 7-year period will formally be prepared in 1994. This schedule will be subject to public notice and review, and must be approved by both the District Manager and Regional Director, The implementation schedule will be revised or amended should priorities change within the district. The Fisheries Management Plan will be reviewed at 5-year intervals or when major revisions are required. Should any significant modifica-

tions or revisions to either the implementation schedule or Fisheries Management Plan be required, the same public review and approval process will be followed.

All strategies and tactics in the Fisheries Management Plan will comply with the Environmental Assessment Act.

TABLE 2. TERRACE BAY DISTRICT FISHERIES MANAGEMENT IMPLEMENTATION SCHEDULE 1989-93

MANAGEMENT ACTIVITY	LOCATION	YEAR	EXISTING FUNDING	ADDITIONAL FUNDING	TARGET ADDRESSED
IMPROVEMENT OF ENVIRONMENTAL QUALITY					
1. Review and input into resource management plans such as municipal, herbicide and insecticide spray programs, water control structures and bridge construction, access roads, mining exploration, aggregate removal and timber management, other government agency plans, private sector initiatives and work permits.	District-Wide	1989-93	X		All
2. Increase monitoring and enforcement of operations which could threaten fisheries habitat.	District-Wide	1989-93	X	X	Lake Trout Sport Commercial Bait Fish
3. In conjunction with other services, inform public of proper procedures for carrying out activities on Crown land in order to prevent habitat degradation.	District-Wide	1989-93	X		All
4. Expand public awareness of fish contaminant monitoring program.	District-Wide	1989-93		X	Commercial Lake Trout Sport
5. Continue collection of fish samples from Lake Superior and two inland sites per year for contaminant analysis by the Ministry of the Environment.	Lake Superior, Bound, Charlotte, Mooseskull, Waboosekan, Whitesand, Prairie, Killala and White Otter Lakes, Steel River	1989-93	X	X	Commercial Sport Lake Trout

TABLE 2 (cont'd)

MANAGEMENT ACTIVITY	LOCATION	YEAR	EXISTING FUNDING	ADDITIONAL FUNDING	TARGET ADDRESSED
IMPROVEMENT OF ENVIRONMENTAL QUALITY (cont'd)					
6. Identify sites where habitat degradation has occurred and recommend action for rehabilitation.	District-Wide	1989-93	X		All
	Aguasabon River	1990-93		X	All
	Moberly Bay	1989-93		X	All
	Peninsula Harbour	1989-93		X	All
7. Support community projects (CFIP) to rehabilitate degraded fish habitat or improve existing habitat.	District-Wide	1989-93	X	X	Sport
MINIMIZE USER CONFLICTS					
1. Monitor sport and commercial fisheries through increased enforcement patrols (this will be accomplished through the creation of one new Deputy Conservation Officer position in the district).	District-Wide	1989-91	X	X	All
2. In conjunction with other services, hold a minimum of two public meetings per year with resource users to discuss mutual concerns.	District-Wide	1989-93	X		All
3. Develop and maintain a boat cache policy for selected lakes.	Macutagon, Garnham	1989-93	X		Sport
4. Alter access on select lakes to maintain a high quality fishery.	Cornish, Macutagon, Garnham	1989-93	X		Sport
5. Encourage meetings between various user groups.	District-Wide	1989-93	X		All

TABLE 2 (cont'd)

MANAGEMENT ACTIVITY	LOCATION	YEAR	EXISTING FUNDING	ADDITIONAL FUNDING	TARGET ADDRESSED
PREVENT THE LOSS OF FISH AND FISHING OPPORTUNITIES					
1. Continue to stock lake trout into Lake Superior to rehabilitate the lake trout populations.	Lake Superior: Prairie Cove, Sturdee Cove, Coldwell, Rossport, Terrace (Hydro) Bay	1989-93	X		Lake Trout Sport Commercial
2. Through increased stocking of select lakes provide good fishing opportunities within close proximity of towns. *	Angel, Barehead, Bews, Botham, Drop, Emerald, Gaug, Jason, Lamont, Spectacle, Mickey, Dew, Three Finger and White-sand Lakes	1989-93	X		Sport
3. Consider catch limit alterations for Lake Superior salmonids, closed season for lake trout during spawning runs, altered brook trout and/or walleye seasons.	Lake Superior and tributaries	1989-92	X		Lake Trout Sport
4. Encourage and promote development of access points. *	Santoy, Jackfish, White Otter, Mooseskull, Dead Otter, Thompson, Little Mose, Agonzon, Kagiano, and in conjunction with the Steel River Park Management Plan, the Steel River at Deadhorse Road	1989-93		X	Lake Trout Sport
5. Enhance fish populations in lakes with no or limited sport fish through stocking of game species and/or removal of undesirable fish species. *	Barehead, Three Finger, Dickison (Walleye)	1989-93	X	X	Sport
	Ashmore, Bluebill, Ross, Ault, Flats, Gordon,	1989-93	X		Sport

TABLE 2 (cont'd)

MANAGEMENT ACTIVITY	LOCATION	YEAR	EXISTING FUNDING	ADDITIONAL FUNDING	TARGET ADDRESSED
PREVENT THE LOSS OF FISH OR FISHING OPPORTUNITIES (cont'd)					
5. (cont'd)	Eric's (Brook Trout)				
	Southpine, Eric, Bews, Ambrose (Sucker removal then stocking with brook trout)	1989-93	X		Sport
	Foxxe, plus 3 other lakes (Rainbow Trout)	1989-93		X	Sport
	Ramsay (Splake)	1991	X		Sport
6. Develop lake management plans which would consider limited angling, tourism and cottaging opportunities as well as sanctuary status.	Killala Lake	1989-90	X		LT, Sport
	Aurora Trout Lakes	1990-92	X		Sport
7. Reduce the possibility of unplanned fish introductions by informing the public of problems associated with these introductions.	District-Wide	1989-93	X	X	All
8. Implement new regulations restricting use of live bait in certain water bodies.	Killala Lake, Aurora Trout Lakes, Stocked Brook Trout Lakes	1990-93	X	X	All
9. Monitor sea lamprey scarring and wounding rates.	Lake Superior	1989-93		X	Commercial LT, Sport
INCREASE SCIENTIFIC AND TECHNICAL DATA					
1. Utilize volunteers/co-operators to supply harvest information.	Lake Superior, Inland Lakes, Tourist Operators	1989-93	X		Sport Lake Trout Commercial

TABLE 2 (cont'd)

MANAGEMENT ACTIVITY	LOCATION	YEAR	EXISTING FUNDING	ADDITIONAL FUNDING	TARGET ADDRESSED
INCREASE SCIENTIFIC AND TECHNICAL DATA (cont'd)					
2. Continue to update staff in the field of computers in order to aid and expedite data management and reporting.	District-Wide	1989-93		X	All
3. Conduct lake and stream surveys on water bodies which are to be accessed within 5 years.	Bissonette, Musher, Kentron, Fran, Pody, Gracie, Fakeloo, Gaffhook, Chapman, Cameron, Pottery and Leader Lakes, Hanes Creek, plus 5 other streams	1989-93	X		Sport Bait Fish
4. Survey unsurveyed lake trout lakes.	Margon, Seeley, Three Moose, Geordie, Prospect	1989-92		X	Lake Trout Sport
5. Monitor exploitation rates of various lake trout stocks.	Slate Islands, Rossport Islands	1990-93		X	Sport, LT Commercial
6. Conduct fish population assessments and inventories in prominent water bodies.	Steel River, Aguasabon River, Dead Otter, Bare-head, Dotted, Garnham Lakes, Aurora Trout Lakes, plus 5 other lakes with possible potential for brook or rainbow trout stocking	1989-93		X	Lake Trout Sport
7. Contribute to the Remedial Action Program to monitor fish populations and habitat conditions.	Moberly Bay, Peninsula Harbour	1989-93		X	Lake Trout Sport Commercial

TABLE 2 (cont'd)

MANAGEMENT ACTIVITY	LOCATION	YEAR	EXISTING FUNDING	ADDITIONAL FUNDING	TARGET ADDRESSED
PROMOTE USE OF UNDERUTILIZED SPECIES					
1. Expand available whitefish dip-net areas.	District-Wide	1989-93	X		Sport
2. Encourage fishing for underutilized species through distribution of information packages, public meetings, news releases and newspaper articles.	District-Wide	1989-93		X	Sport Lake Trout
3. Increase access for bait fish harvesters through input into resource management plans. *	Bait Fish Lakes	1989-93	X		Bait Fish
4. Provide information and advice regarding bait fish to the public and the bait fish industry.	District-Wide	1989-93	X		Bait Fish
5. Review bait fish program to develop a procedure to ensure bait fish areas are being utilized.	District-Wide	1991-92	X		Bait Fish
IMPROVE ACCESS TO LAKE SUPERIOR					
1. Develop one access point on Lake Superior within the next five years. Encourage private or municipal development of other sites. *	Terrace (Hydro) Bay, Jackfish, Coldwell or Marathon	1990-93		X	All

* The Environmental Assessment Act requirements for these projects will be met.

CONCLUSION

Effectively managing the fisheries resource to ensure continued social and economic benefits is a complex activity and a major responsibility. The Ontario Ministry of Natural Resources has been given this responsibility. The basic tool required to achieve this is a Fisheries Management Plan, a plan which will set out long-term goals for the use of our resource, outline the concerns, and define the essential measures necessary to balance a limited resource with the demands that are being placed upon it.

This plan addresses the concerns of the Terrace Bay District's fisheries resource and provides the resource users with an insight into the complex problems of fisheries management. At present, the Terrace Bay District enjoys the unique situation of having a commercial food fish surplus, a bait fish surplus, and the ability to meet our sport fish targets. The overall objective of this plan is to ensure that the Terrace Bay District remains a quality fishing area for years to come.

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APPENDIX A: LAKE TROUT LAKES

(From OMNR, 1983)

The lakes in the Class I and II lists have the best trout populations and best habitat. They will be managed in order to maintain or improve the population and habitat. For lakes in these two classes, additional development may be restricted.

The lakes in the Class III list have recognized natural populations, but because of development and poor trout habitat, they will receive a minimal management effort.

CLASS I	CLASS II	CLASS III
Killala Lake	Bamoos Lake	Big Bruin Lake
Boomerang Lake	Cairngorm Lake	Davidson Lake
Prairie Lake	Catlonite Lake	Ellis Lake
Ruffle Lake	Klinestiver Lake	Garter Lake
Kenny Lake	Little Santoy Lake	Horneblende Lake
Owl Lake	Santoy Lake	Lyne Lake
	Dead Otter Lake	Otisse Lake
	Madosan Lake	Whitesand Lake
	Cirrus Lake	Sox Lake
	Coubran Lake	

GLOSSARY

ALLOWABLE HARVEST:

The theoretical maximum harvest that can be taken annually while maintaining fish populations.

ANGLER DAY:

A measure of fishing effort by anglers. While it is usually accepted that any amount of effort in a day constitutes one angler day, for the purposes of converting angler hours to angler days, one angler day will be the equivalent of four (4) hours of angling effort.

ANGLING OPPORTUNITY:

A measure of supply to indicate the amount of use a resource can sustain. An angling opportunity may be defined as one fishing trip not exceeding one angler day in length.

BAIT FISH:

Any fish which may be legally harvested by the commercial bait fish industry.

COMMERCIAL FISH:

Any fish which may be legally harvested by the commercial fishing industry.

GOAL:

A general purpose to which the M.N.R. aspires.

HABITAT:

The place or type of site where fish species naturally or normally occur.

INTEGRATED RESOURCE MANAGEMENT:

The co-ordination of resource management programs to ensure that conflicts are minimized and that management which would benefit several programs is encouraged. Integrated management encourages multiple use, but recognizes that in some circumstances management of some areas for a single purpose may be necessary.

LAND USE GUIDELINES:

The document which displays direction concerning the use of land and water in a defined area. It identifies where and how the Ministry intends to achieve its objectives in a specific district through the use of Crown land and through influencing the use of private land.

NON-RESIDENT:

Any angler whose principle residence is not in Ontario.

OBJECTIVE:

A quantifiable and attainable end which the Ministry's efforts intend to accomplish.

OPTIMUM SUSTAINABLE YIELD:

The maximum level of resource harvest which can be sustained on a long-term basis without causing detrimental effects on the resource base.

POLICY:

A decision concerning the objectives to be achieved and the means of achieving them.

POTENTIAL YIELD:

The estimated maximum portion of fish weight which can be harvested annually without detrimentally impacting the fish community. Potential yield is calculated using the formula $1.4\ (MEI)^{0.45}$.

PROJECTED YIELD:

The estimated fisheries yield at the year 2000 based upon changes in fish stocks as well as realizing a proportion of the potential yield from waters currently rated as under-producing.

QUOTA:

The amount of fish allocated by species to commercial food fisheries.

REHABILITATION:

Efforts to enhance or restore degraded or stressed fish populations and fisheries habitat to their original condition.

RESIDENT:

Any angler whose principle residence is in Ontario.

SPORT FISH:

Any fish which may be legally caught by anglers.

STRATEGY:

Broadly planned actions or measures to achieve a desired end.

TACTIC:

A specific method designed to achieve one or more strategies.

TARGET:

A quantified end to be achieved or completed by a specific date.

MAPS
NOT
FILMED

CARTES
OMISES